

CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-26 (cancelled).

27 (previously presented). A polymeric material comprising a compressed assembly of melt formed fibers of a cross-linked oriented polyolefin, the fibers being bound together by a recrystallized melt comprising from 10% to 50% by weight of the polymer in the material, wherein both fibers and recrystallized melt phase are derived by a process comprising:

subjecting molecularly oriented polyolefin fibers to a cross-linking process;

providing an assembly of said cross-linked polyolefin fibers; and

subsequently subjecting said assembly of cross-linked fibers to conditions of temperature and pressure sufficient to melt from 10 to 50% of the polymer in the material and to compact said assembly such that the material is formed.

28 (currently amended). A material as claimed in claim 27, wherein the crosslinked fibers are ~~irradiation~~ radiation crosslinked with ionizing radiation.

29 (previously presented). A material as claimed in claim 27, wherein the crosslinking step is carried out in an environment which is substantially free of oxygen gas and which comprises a monomeric compound selected from the group consisting of alkynes and alkenes, the alkenes being those having at least two double bonds.

30 (previously presented). A material as claimed in claim 27, where the fibers have a weight average molecular weight in the range 10,000 to 400,000.

31 (previously presented). A material as claimed in claim 27, wherein the polyolefin polymer is selected from the group consisting of polypropylene homopolymer, a copolymer containing a major proportion of polypropylene, polyethylene homopolymer and a copolymer containing a major proportion of polyethylene.

32 (previously presented). A material as claimed in claim 27 wherein the polyolefin polymer fibers of the precursor assembly have a gel fraction in the range 0.55 to 0.7.

33 (previously presented). A material as claimed in claim 27 comprising up to 60% by weight of an inorganic filler.